

# DOCKETED

IN THE UNITED STATES DISTRICT COURT FOR THE  
SOUTHERN DISTRICT OF NEW YORK

MIDWAY MANUFACTURING COMPANY: Deposition of  
vs. : William T. Rusch  
THE MAGNAVOX COMPANY : Eighth Day  
and : 74 Civ 1657 CBM  
SANDERS ASSOCIATES, INC. :  
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IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

THE MAGNAVOX COMPANY, et al : Consolidated Actions  
vs. : 74 C 1030  
74 C 2510  
BALLY MANUFACTURING : 75 C 3153  
CORPORATION, et al : 75 C 3933  
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Continued deposition taken  
pursuant to subpoena and notice at the Sanders Associates,  
Inc.; Headquarters, Spit Brook Road; Nashua, New Hampshire;  
Tuesday, March 16, 1976; commencing at ten o'clock in the  
forenoon.

**FILED**

ERNEST W. NOLIN & ASSOCIATES

General Stenographic Reporters

369 ELGIN AVE., MANCHESTER, N. H. 03104

TELEPHONE: 623-6906

H. STONE, CLERK  
UNDER STATES DISTRICT COURT

OCT - 8 1976

Exhibit 83, I believe. PRESENT: I also hand you

Exhibit 87, which is the For Midway Manufacturing Corporation.  
Company, Bally Manufacturing  
Corporation and Empire:

of value to patent No. Donald L. Welsh, Esq., 135 South  
of that declaration, LaSalle Street, Chicago,  
Illinois. your signature?

A. Yes.

For Sanders Associates, Inc.,  
and Magnavox Company:

Q. And on what date did you sign that declaration?

A. It was signed by me, James T. Williams, Esq.,  
77 West Washington Street,  
Chicago, Illinois.

Q. To you, recall executing this declaration on or about  
that date?

Louis Etlinger, Esq., and  
Richard I. Seligman, Esq.,  
Daniel Webster Highway, South,  
Nashua, New Hampshire. of the

A. I don't recall exactly.

Q. That is two days, is

oath for the earlier Stenotype Reporter:

A. Yes. What is this of Ronald J. Hayward, the one?

Q. That is the one for the 536 patent which was in your

WILLIAM T. RUSCH

name along with Mr. Baer and Mr. Harrison. It is  
called as a witness, having been previously sworn, was  
a reissue of Patent No. 3,629,765. At the time  
further examined and continued his testimony as follows:  
you signed the declaration for the 536 reissue

(Interrogatories by Mr. Welsh.) I declared that

Q. Mr. Rusch, at our last session, you were discussing  
the declaration for reissue patent No. 28,507 which  
bears a date opposite your name of April 22, 1974.

I now hand you that oath which is a part of the

Exhibit 48, I believe, and now I also hand you

Exhibit 42, pages thereof making up the declaration.

The exhibit being the certified file wrap contents of reissue patent No. 28,598. On the fourth page

of that declaration, is that your signature?

A. Yes.

Q. And on what date did you sign that declaration?

A. It says April 24, 1974.

Q. Do you recall executing this declaration on or about that date?

A. I don't recall specifically.

Q. That is two days, is it not, after the date of the oath for the earlier 507 reissue patent?

A. Yes. What is this one for the April 24th one?

Q. That is the one for the 598 patent which was in your name along with Mr. Baer and Mr. Harrison. It is a reissue of Patent No. 3,659,285. At the time you signed the declaration for the 598 reissue patent, do you recall whether you compared that with the declaration for reissue patent No. 28,507 which was filed in your name alone?

A. I don't recall.

Q. Would you now please read the declaration for the

reissue Patent 28,598?-- WELSH: You may answer

A. Yes, I have read it.

Q. Do you still subscribe to all of the statements in that declaration? question.

A. I believe so, yes. MR. WELSH: No, I asked him if

Q. Do you understand now the reason why the reissue the application for reissue of Patent No. 3,659,285 was filed?

MR. LILLINGER: Well, read it

back.

MR. WILLIAMS: I object to

the question. Whose reason are you referring to?

(whereupon, the previous

MR. WELSH: Does he understand question was read back

any reason.

by the reporter.)

MR. WILLIAMS: I still object

to the question as vague. I think who had the reason

that you referred to is important. page of this

declaration, "That Pa MR. WELSH: as Anyone. Do you five

understand the question? application and because

of said defective THE WITNESS: I believe I

understand the question. the exclusive licenses of

said letters patent, MR. WILLIAMS: I object to the

question if it calls for somebody's reason other

than the witness's as calling for hearsay

information.

Q. Did you have anything, MR. WELSH: You may answer?

A. the question. I only in talks with people in the  
Sangers' Patent Department. MR. WILLIAMS: I think he  
has answered the question. of these words that are

Q. in here and wrote the MR. WELSH: No, I asked him if  
he understood the question. He has not answered the  
question. and had at the time you signed it?

A. You say at the time MR. ETLINGER: Well, read it

Q. back.

A. I believe so.

(Whereupon, the previous

Q. Did you actually read the foregoing specification  
question was read back  
and claims referred to in the declaration  
by the reporter.)

A. I think so.

Q. At the time you were THE WITNESS: I believe it is read  
what is said beginning on the first page of this  
declaration, "That Patent 285 was partly inoperative

A. by reason of a defective specification and because  
of said defective specification, the assignee of

Q. said Letters Patent and the exclusive licensee of  
said Letters Patent, may both fail to gain the full  
benefit of our invention to which they are entitled."

Q. Who prepared the declaration?

A. I have no idea. testimony but now regarding your

10 Q. Did you have anything to do with its preparation?

A. Only and possibly in talks with people in the Sanders' Patent Department, but I don't believe I specifically made up any of these words that are in here and wrote them down or anything like that.

11 Q. Was it handed to you complete in the form which it has there and had at the time you signed it?

A. You say at the time I signed it?

12 Q. Yes. I remember being told - - -

A. I believe so. MR. WILLIAMS: Mr. Busch,

13 Q. Did you actually read the foregoing specification and claims referred to in the declaration?

A. I think so, please?

14 Q. At the time you were given the declaration and signed it, were you advised of any reason why the reissue application was being filed?

(Whereupon, the previous question was read back by the reporter.)

A. I think it was the same reason I just quoted from the declaration. THE WITNESS: Anything different?

15 Q. Is that the same reason you were given as to why

18 Q. the application for reissue of Patent No. 3,659,284 was filed? If you, you started to say you vaguely

A. I think so. What do you vaguely recollect?

16 Q. Now, in your testimony just now regarding your act



understanding of the reason why the application for reissue Patent 28,598 was filed, you referred to and actually I believe read from the declaration, did you not? He told him whatever he might have

A. Yes, told. I think you must, prior to asking what

Q. Do you have any independent recollection of any old reason which you were told about for this reissue application?

A. I vaguely remember being told - - -

A. I don't remember exact MR. WILLIAMS: Mr. Rusch,

Q. the question calls for a yes or no answer.

A. It was probably Mr. THE WITNESS: Would you repeat the question, please? Which one of them it was. It

may have been Mr. Rusch; I just don't remember

(Whereupon, the previous exacting

question was read back

Q. Do you have any recollection of your understanding by the reporter.)

of the reason for this reissue application at

the time when you - THE WITNESS: Anything different

A. basically from what is written here? It was again

Q. Now, in your previous answer before Mr. Williams interrupted you, you started to say you vaguely recollect, what do you vaguely recollect?

MR. WILLIAMS: Well, I object

to the question as lacking a foundation and as and  
counsel is well aware, there is a possible claim  
of attorney-client privilege here depending on  
who it was that told him whatever he might have  
been told. I think you must, prior to asking what  
he recalls being told, you must ascertain who told  
it to him and when and I instruct the witness not  
to answer. *Understanding, did that reason have anything*

Q. Who advised you of the reason? *coin games?*

A. I don't remember exactly. *as mentioned on page 2 of*

Q. Do you have any recollection at all?

A. It was probably Mr. Etlinger or Mr. Seligman; I  
can't recall exactly which one of them it was. *It*

A. may have been Mr. Baer; I just don't remember  
exactly.

Q. Do you have any recollection of your understanding  
*(Whereupon, the previous question was read back to the reporter.)*  
of the reason for this reissue application as of  
the time when you executed the declaration?

A. I don't recall specifically; I think it was again  
as stated in this declaration. *location?*

Q. It had something to do with coin-operated TV games?

MR. WILLIAMS: I object to  
the question as vague. *The witness has answered*



the prior question by reference to a document and I don't understand what the follow-up question is intended to convey. There may have been something wrong with this Patent 28. MR. WILLIAMS: The question was related to his understanding of the reason for the reissue application at the time that he executed the declaration.

Q. In your understanding, did that reason have anything to do with coin-operated television games? 285 patent,

A. I would think to the extent mentioned on page 2 of

A. this declaration, yes. sure I actually understand

Q. You don't have any recollection independently on

Q. page 2 of the declaration for the reissue application?

A. May I have that question again?

A. Yes.

(Whereupon, the previous

Q. As of the time you signed the declaration, did you question was read back

understand why Letters Patent 2,659,285 was partly by the reporter.)

inoperative by reason of a defective specification?

A. I'd say to the extent MR. WILLIAMS: You mean of a,

the reason for the reissue application?

Q. Now is this specific MR. WELSH: Yes.

MR. WILLIAMS: The question

has been asked and answered many times already and

I object to it for that reason.

THE WITNESS: I seem to remember being told that there may have been something wrong with this Patent 285 that needed further legal clarification and I believe that is the reason I was given as to why a reissue patent was being applied for.

Q. Did you understand at the time you signed the declaration why the patent, that is, the 285 patent, needed legal clarification?

A. I doubt it. I am not sure I actually understand it now either.

Q. Did you rely in that regard on the Legal Department at Sanders?

A. Yes.

Q. As of the time you signed the declaration, did you understand why Letters Patent 3,659,285 was partly inoperative by reason of a defective specification?

A. I'd say to the extent stated in this declaration, I think I understood or believed - - -

Q. How is this specification defective?

MR. WILLIAMS: Well, I object to the question. The witness has just testified

what his understanding was and he was referring to the document and the document speaks for itself.

THE WITNESS: What was that question again?

I can't find it. I was told something, I don't know what.  
(Whereupon, the previous

question was read back  
by the reporter.)  
as stated other than as stated in the declaration?

THE WITNESS: I don't know,  
I guess I was looking more at page 2 where they  
are talking about claims being inadequate to  
fully protect our invention. I am not sure, I  
do know just why this specification was considered  
defective. At least receivers with the right

Q. Did you personally find it defective, apart from the  
statements in this declaration?

MR. WILLIAMS: Would you repeat  
the question, please?

(Whereupon, the previous

question was read back  
by the reporter.)

Q. I will restate the question: As of the time you

signed the declaration for reissue of the 285 patent, did you consider the specification of that patent defective in any respect other than as stated in the declaration?

A. I can't recall if I was told anything besides what was in the declaration.

Q. Did you personally feel that it was defective in any respect other than as stated in the declaration?

A. I don't know.

Q. Referring to the last five lines of page 2 of the declaration, did you as of the time you signed the declaration believe the enumerated claims 1, 2, 5 and 6 do in fact cover games using television monitors or broadcast receivers with the radio and intermediate frequency portions bypassed or disabled?

A. Could I have that again?

(Whereupon, the previous

question was read back

by the reporter.)

THE WITNESS: I think I did.

I originally thought the patent itself covered such things.

Q. With respect to the declaration of the application for reissue of Patent No. 3,659,284, I believe you testified that regarding certain portions of the declaration, you relied on the Legal Department for the truth of the statements, is that correct?

A. That is correct.

Q. And is that same thing true with respect to the portion of the oath we were discussing regarding your belief that claims 1, 2, 5 and 6 do in fact cover games using television monitors or broadcast receivers with the radio and intermediate frequency portions bypassed or disabled?

A. I could reread the claims and tell you to the best of my understanding again how I interpret them, but again I have to put a large part of my trust in the Legal Department on this 284 - what is it, my patent?

Q. Your patent is the 284 patent.

A. On the 284, I think I did mention in that Figure 19, a paragraph some place, that to my understanding

Q. I believe that that portion that you just referred to in the 284 patent you pointed out with respect to an earlier statement in the declaration of the

application for reissue of that patent relating to your understanding as to whether the television receiver and standard television receiver always meant any cathode ray tube. This is with respect to a different portion and my question is with regard to your belief that the enumerated claims 1, 2, 5 and 6 in fact covered games using the TV monitor, did you not rely upon the Legal Department?

MR. WILLIAMS: Mr. Welsh, I object. Mr. Rusch was in the midst of an answer and I think you interrupted him and I think he should be given an opportunity to continue with that answer and I suggest, Mr. Reporter, that you read back the answer that Mr. Rusch had started to give.

MR. WELSH: I would like to have you mark that question because I don't believe he answered the question.

(Whereupon, the requested answer was read back by the reporter.)

THE WITNESS: --Covers the case of units which are used solely for TV gaming and

Punct,  
(continuing  
answer  
started  
on  
p. 13)  
20/2  
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do not have capability to receive broadcast programs.

Q. Are you reading from the 284 patent?

A. Yes, I am. Column 17, lines 12 through 15. The last sentence in that paragraph being, "This is illustrated in the simplified block diagram of Figure 19."

MR. WILLIAMS: Have you finished your answer, Mr. Rusch?

THE WITNESS: I think so.

MR. WELSH: Now, the question I asked you to mark, would you read that to the witness, please?

(Whereupon, the requested question was read back by referring to the specification for the the reporter.)

MR. WILLIAMS: I object to the question including a characterization of the testimony from last week, the record will show what the testimony was last week.

THE WITNESS: I'd like to <sup>WR</sup> answer that question, and it was just reread, but it is so long, do you think you could break it up.

Punct. <sup>WR</sup> 5/27/76

into simpler parts for me?

Q. With respect to the statement of your belief set forth on page 2 starting at the 5th line from the bottom, that is your belief that the enumerated claims 1, 2, 5 and 6 do in fact cover claims using television monitors or broadcast receivers with the radio and intermediate frequency portions bypassed or disabled, did you or did you not rely on legal counsel?

A. I think both. I don't remember specifically, but I think I quite probably read those claims to see what my intent was or rather to see whether they covered my intent as <sup>it</sup> is stated in the specification.

Q. Now, when you say as stated in the specification, were you not referring to the specification for the 284 patent?

A. I don't know if that phrase appears in both patents, but, as I say, as far as my intent goes, and I think all of our intent, it was that that phrase applied to all our work.

Q. Referring now to the statement starting in the middle of the second page of your declaration, that in the context of your invention and the context of

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the description in the Letters Patent No. 3,659,258 you stated, "I have always understood and believed 'television receiver' and 'standard television receiver' to mean any cathode ray tube display incorporated circuitry for a raster-type scan." Do you find in the 285 patent any statements supporting that belief?

MR. WILLIAMS: I object to the question, I think the 285 patent speaks for itself. Once more to answer the question, it would require that the witness review in detail a rather lengthy document and I see no reason for wasting the witness's time or counsel's time in having him do that.

THE WITNESS: I think yes, (and I may add that this was not pointed out to me; wr I specifically refrained from discussing this matter with any attorneys here this morning just so I wouldn't be asked about it and have objections and all that. Just before we started the deposition here this morning, I quickly browsed through this 285 patent to see if it at least in my mind covered the situation as the other one and I found at least

wf  
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5/27/76

one phrase which I think substantiates our intent. In Column 11, starting with line 49, "Suitable overlays may be provided over the screen in order to make the game more realistic by making the screen look more like a putting green. The overlays may also be applied by broadcast TV or closed circuit TV or CATV or electronic displays." And I might add that we didn't intend to put overlays on one display and play a game on the other display, so even though this is only talking about overlays; in my mind, it certainly included all the games themselves. There may be other instances, but, as I say, I scanned this patent in about two or three minutes and my eye happened to light on that portion which I again emphasize was not pointed out to me. In column 18 -- (I will have to ask you a question, is this application Serial No. 126966 or 828154? Is one of them the application for my 284 patent?)

MR. WILLIAMS: Yes, it is,  
Mr. Rusch.

THE WITNESS:--If so, column 18 of the 285 patent, it says, "Other games and techniques can be carried out in the manner set forth

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5/27/76

in said application Serial No. 126966 and 828154."  
Which again, in my mind, where it says, "In the  
manner set forth," would make me believe that this  
patent could refer back to that same Figure 19 and  
column 17 of the 284 patent which I mentioned.

Q. As of - - -

MR. WILLIAMS: I think he is  
not finished with his answer.

MR. WELSH: Excuse me.

THE WITNESS: Not quite. All  
right; further down in the column 18, beginning  
with line 38, it says, "the arrangement of the  
apparatus itself also can be changed in the manner  
set forth in the said application Serial No. 828154,  
for example, the dot generating apparatus can be  
built right into the television set rather than  
be a separate unit. The dot generation apparatus  
can be wired into the television set itself rather  
than really be connected to the antenna terminals  
thereof." Now, as an engineer back in my realm  
and away from the legal end and things I am not  
familiar with, this certainly would seem to me and  
I believe to most engineers to cover a case other

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than an RF type unit. I may add this, column 18 was not pointed out to me either. I found this at the same time I found the other one, right before we started today. Shall I go through the rest of this to see if I can find more instances?

Q. If you would like. With respect to the one that you just noted, that did refer to a complete television set, did it not?

MR. WILLIAMS: I object to the question as vague.

THE WITNESS: I don't know, it certainly doesn't have to. There would be no reason for the RF portion of the television set to do what this says.

Q. But it does contemplate a complete television set, does it not so state?

A. No, it just says the television set. To me, anyhow it would contemplate wiring in this dot generation apparatus considerably further along the line than the antenna terminals. It says <sup>we</sup> rather than merely being connected to the antenna terminals <sup>we</sup> thereof. If one was going to all the trouble of wiring it in, one of these things - well, I don't

Punct.  
W/P  
5/27/76



know, it would depend on the application, but certainly this could be wired in past the RF.

Q. Doesn't it contemplate simply the addition of the dot generation apparatus to a television set which would still be capable of receiving broadcast signals?

MR. WILLIAMS: Well, I object, what is the "it" that you are referring to?

MR. WELSH: The portion of the specification of the 285 patent that he has just been referring to.

MR. WILLIAMS: Well, he has just been referring to a lot of portions of the 285 application.

MR. WELSH: I am referring specifically to the paragraph starting at line 28 of column 18 of the 285 patent?

MR. WILLIAMS: Well, that paragraph also refers to at least two different arrangements and the question is vague in that you haven't stated to which one the question relates to.

THE WITNESS: I think I can

answer your question. Continuing a few lines further down, it says, "The output of the summer can be applied to the video amplifier directly, eliminating the need for a modulator and an RF oscillator."

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76

Q. Would you read the next sentence, please?

A. "This can be applied via a switch switching between the conventional video detector and the output of a summer so that the television can be used in the gaming mode or the conventional viewing mode."

MR. WELSH: Thank you; let's take a short break.

MR. WILLIAMS: I just want to point out for the record before we take a break that that illustrates exactly the problem with the vague question. There are two subject matters referred to in that paragraph and the witness answered to one and we now have no answer on the question as to the other subject matter.

MR. WELSH: Did you complete your answer?

A. The last one I did in that I read that additional sentence you asked for. As to the previous question, and I am not sure, I think this could refer to

two modes, one of them being this embodiment of the 284 patent on page 17 which is called "a further embodiment which would be used solely for TV gaming and not to receive broadcast programs." I keep trying to say that our intent was to cover all or both such cases and in that this 285 was tied back into the 284 through that previous paragraph up in line 26, page 18, where it says "other games and techniques can be carried out in the manner set forth in said application Serial No. 126966 and 828154," that I could believe that the paragraph around line 40 could cover both cases.

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wf  
Punct.  
5/27/76

MR. WELSH: Why don't we now take a break.

(Whereupon, a recess was taken.)

Q. (By Mr. Welsh) With regard to the declaration for the application for reissue of Patent No. 3,659,285 there are such statements in there, are there not, on which you relied on counsel from the Sanders' Legal Department as to the truth of those statements?

A. Before I answer that question, I would like to add a little bit more to my answer of the previous one. Just before I went over to pour my coffee on the break, I looked at the last part of the paragraph we were discussing in column 18; and, to answer your question whether that paragraph refers just to a TV set that can be used for receiving programs and playing games, I want to clarify it a little bit more. First, at the top of the paragraph it says, "The dot generating apparatus can be built right into the television set." Then it says, "The dot generation apparatus can be wired into the set rather than merely being connected to the antenna terminals thereof." And the next sentence doesn't say that it must be connected to the video amplifier, but it says it "can" be. And, if that is done, then indeed with the switch that is mentioned one could switch between two modes; in one the television could be used in a conventional viewing mode, in the other in the gaming mode. If at that point the dot generating equipment were wired into the video amplifier instead of the RF, then the conventional viewing mode does not have

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to be used. The word in the paragraph says <sup>WR</sup> "can," not <sup>WR</sup> "must." What I specifically wanted to bring into the record was line 52, <sup>WR</sup> which is part of that same <sup>WR</sup> paragraph; line 52 says, "A television receiver can be made just," and I emphasize the just, "for television gaming in the manner set forth in said application Serial No. 828154." So I would say that that again covers a case of a device which is used just for television gaming without receiving broadcast signals. Again perhaps television receiver in that sentence is a poor choice of words, but that is the way it is written. Now, may I have the question I am supposed to be answering?

(Whereupon, the previous question was read back by the reporter.)

THE WITNESS: I believe I said that before, yes.

Q. Would you point out in this declaration which of the statements fall in that category?

MR. WILLIAMS: Well, I assume, Mr. Welsh, you are referring to statements on which

Punct.  
WJR  
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Punct.  
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he relied on legal counsel?

MR. WELSH: Yes.

MR. WILLIAMS: And I object to the question in that you haven't said whether you want statements upon which he wholly relied on the advice of legal counsel or also to include statements on which he relied on that counsel in combination with his own belief. I think the question is vague.

Q. I would like you to point out any statements in the declaration in which you relied on legal counsel; and, if you did not rely entirely on legal counsel for the truth of the statement, then would you state the extent to which you did rely on it?

A. All statements in here as it says <sup>we</sup> were made on information and belief, <sup>we</sup> it was probably information that I received from the Sanders' Legal Department.

MR. ETLINGER: I would like to make a statement here in order to prevent any inaccuracy from creeping in the record. The Sanders' Legal Department has nothing to do with patents and we have two separate departments in the corporation; one is a patent department and one

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is a legal department. I believe Mr. Rusch is referring to the patent department only.

THE WITNESS: That is correct, and any time in this whole deposition where I previously referred to the Legal Department, I meant the Patent Department. I intended to use the terms interchangeably until corrected. Well, on the first page of this declaration <sup>g</sup>and I relied on the Patent Department for the part where it says, "We will, prior to allowance of the reissue application surrender original United States Letters Patent 3,659,285 - - -" In that I thought that had been surrendered long before this reissue thing happened and that it was not contingent upon a reissue being applied for. Certainly I relied on them in the statement that the application for reissue being on its behalf and its request and with its assent. And I relied on the Patent Department in the sentence that said, "Letters Patent 3,659,285 is partly inoperative by reason of a defective specification." I relied on them where it says, "That the exclusive licensee of said Letters Patent has attempted to grant licenses

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26

under both said Letters Patent and other United States Letters Patent relating to similar subject matter to various manufacturers of certain coin-operated television games using the invention of said Letters Patent 3,659,285." And I relied on them for the next phrase about, "The said coin-operated television games," in that I didn't know to whom the exclusive license had attempted to grant licenses to. And I relied on the Patent Department to handle the legal reasons, if any, as to why claims 3, 4, 7, 8, 9, 10, 11 and 12 were inadequate to fully protect our invention.

I relied on them to some extent as to the importance of the semantics involved in "television receiver" and "standard television receiver" in that I believe I felt then and I do now that at least the technical specifications of this patent and the 284 patent specifically describe as an option for these games the use of displays not having an RF section and not being able to receive television signals. <sup>At</sup> The bottom of page 2, it says specifically, "That on information and belief some manufacturers of coin-operated television games - - -"

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Clarity  
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As it says, that was information and belief; I relied  
on the Patent Department for the truth of that  
statement as to the position taken <sup>by</sup> from manufacturers  
of coin-operated television games. The next sentence  
on page 3 again specifically says on information  
and belief as opposed to "our own knowledge," and I  
think that speaks for itself. I relied on the  
Sanders' Patent Department for that information and  
belief. As far as the inclusion of terms in  
Patent 285 or indeed the 284 or the other ones which  
might be interpreted by some to say that these games  
could only be played on a full TV receiver with  
RF stages and by only going in at the antenna  
terminals, I could say I didn't rely on anybody  
except myself when I signed the oath to say that  
this was possible, if proved, through their error  
and without any deceptive intention. I think I have  
tried to define my intention and I believe it shows  
in the specification of these patents and again to  
the extent, if any, that the claims didn't cover the  
intent, I have to rely on the Sanders' Patent  
Department.

The last sentence of that

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WFD  
5/27/26

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paragraph where it says certain claims were not included in Patent 285 through error, etc., like I say, I didn't have to rely on anybody to be able to sign this and say if that happened, it was without any deceptive intention on my part and on information and I believe I would say without deceptive intention on anybody's part here at Sanders. Obviously in a portion of the next sentence beginning in the next paragraph where it says statements based on information and belief are believed to be true, I relied on the Patent Department. As far as the punishment and jeopardizing the validity of the application, I again rely on the Patent Department only to the extent that those horrible things would happen. I didn't rely on them as to whether or not I would make any willful false statements because I didn't and I am not now! wtr

As far as the rest of the declaration goes, I relied on the patent offices thinking that that was the best thing to do for the company.

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Q. Going back, although we had discussed it earlier this morning, as you went through here, I don't

believe you made any statement with respect to that portion beginning at the fifth line from the bottom, you did with respect to the last three lines, but I don't think you stated whether - - -

A. Excuse me, the fifth line from the bottom of what?

Q. Page 2.

MR. WILLIAMS: Well, I object because, as you said, there has been extensive testimony this morning on that particular portion of the declaration and I don't think there is any reason to go over that again.

Q. Just so this portion of the record will be complete, I would like to have you make this statement with respect - or state whether that belief was based on reliance of the Patent Department at Sanders?

A. This is the one beginning with the words, "That while I believe - - -"?

Q. Yes.

A. Where does it stop?

Q. Just those three lines.

A. Ending with the comma after disabled?

Q. Yes, because you have already commented about the next portion.

- A. Now, am I answering this as of now, as of the time I signed this or both or what?
- Q. As of the time you signed it.
- A. I believe I can say that at that time those claims, <sup>we</sup> and indeed everything in all these patents, <sup>should</sup> <sup>we</sup> in fact have covered games using television monitors, <sup>727</sup> or broadcast receivers with the radio and intermediate <sup>we</sup> <sup>76</sup> frequency portions bypassed or disabled, that being my intent at that time as I think is shown in the specifications which I believe I did help prepare in some of these applications at least. Now, whether these enumerated claims do in fact cover such games or whether I believed it then, for the legal aspects I relied on the Sanders' Patent Department.

MR. WELSH: This would be a good time to break for lunch.

(Whereupon, the luncheon recess was taken.)

- Q. (By Mr. Welsh) Mr. Rusch, prior to the time you went to work on the TV game project under Mr. Baer, had you ever seen any CRT displays in connection with computers?



A. I don't know.

Q. Had you had anything to do with computers?

A. Not really.

Q. Had you prior to that time had any familiarity with cathode ray tube displays for displaying alpha numerics?

A. In a small way, yes.

Q. Where did that take place?

A. At Raytheon, <sup>WR</sup>Wayland, Massachusetts.

Q. That was during that short period when you interrupted your employment at Sanders?

A. Yes.

Q. And what did you have to do or how were you familiar with alpha numeric displays at that time?

A. I am not 100 percent positive that they were alpha numeric, but I think they may have been. Raytheon was doing a job for the FAA and, as I remember it, one portion of this job had to do with scan converters and displays of where aircraft are and things like that. As I say, I can't specifically remember seeing alpha numerics, but I imagine they had facilities for that. I didn't work personally on this scanconverter and <sup>on</sup> of the thing with those

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displays, but our group mostly was working on deflection amplifiers generating high current sawtooth sweep voltages and things like that.

Q. What type of devices were the deflection amplifiers used with?

A. Well, cathode ray tubes.

Q. Were they used to generate a raster?

MR. WILLIAMS: If you recall.

THE WITNESS: I don't remember.

I remember working mainly on just one of the deflection amplifiers. I forget whether it was the vertical or a horizontal amplifier. In fact, for a lot of the development work, I am not even sure there was a cathode ray tube on the bench. We just had a deflection coil wired in the circuit. I don't remember whether there was a raster involved or not.

Q. What use was made of the sawtooth sweep voltages?

A. Well, I believe it was to deflect the spot or the electron beam.

Q. Did you actually use a sawtooth generator?

A. What kind?

Q. Any kind. I recall at that time

A. I think so, yes.

Q. Was that similar to or different from the sawtooth generator that you used in your electronic spot control?

A. It must have been different.

Q. You say it must have been?

A. Yes.

Q. Why must it have been different?

A. I put in for a patent on this particular one I used in the spot control here at Sanders and I wouldn't have done that if I had used a similar circuit some place else, and I hesitated in answering your question about whether or not I used a sawtooth generator in that - and I asked you what kind you meant. As I recall that job, which was about sixteen years ago, our main problems were trying to generate the high current to go into a magnetic deflection yoke and I can't recall whether we used a commercial sawtooth generator as the input to this circuit or whether we used some standard circuit and had one built. It doesn't ring a bell with me. As I say, the high current output end was the main problem at that time.

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Q. What was the end use of the CRT with the deflection amplifier you were working on?

A. I believe it was used in FAA traffic control centers to track aircraft.

Q. Was a raster scan generated on such CRT?

A. I am not sure. I am not sure I ever saw that particular equipment in use. I did visit an FAA station here in Nashua sometime after that period and I thought that perhaps some of the equipment I had helped on was in it, but I couldn't really positively identify it as such, so I don't really know.

Q. And the work that you did with images generated on the screen of the CRT.

A. Not really in my specific end of this work as I have described it. As I say, I can vaguely remember, *we* across the room, some place the Raytheon people themselves being concerned with scan converters; and, before you ask me what that is, I am not even sure I remember what a scan converter is now, but I remember the phrase, and they handled most of that actual display end of the thing. As I said, our assignment was more developing I think it was

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either the horizontal or a vertical or maybe both deflection amplifiers.

Q. Were they generating images on the screen of the CRT across the room?

A. I think so, but I can't remember really just what they looked like.

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Q. Do you recall whether it was a point plotting or raster scan-type display?

A. No. as on the raster scan-type display.

Q. Were the sawtooth voltages you were dealing with used as sync. pulses?

A. To be strictly technically accurate, they were sawtooth currents, not necessarily sawtooth voltages; and I don't remember whether they were used in any kind of syncing.

Q. How long did you work on that project?

A. I'd say approximately six months, perhaps.

Q. Did you have anything to do with the scan converters?

A. No more than I just mentioned that I knew they were over in the corner of the room and, as I say, as I remember it, the Raytheon people were dealing with them, as for a random positioning-type app.

Q. Prior to the time you went to work on the TV game

project under Mr. Baer, did you have anything to do with generation of images on a cathode ray tube screen?

A. I think only insofar as I have already talked about.

Q. That is with respect to deflection amplifiers for cathode ray tubes?

A. Yes.

Q. Did you have anything to do with generation of images on the raster scan-type display?

A. I am not sure. One job at Sanders that I can recall, I think I have talked about it previously, was one where a proposal had gone out based on being able to deflect an electron beam rapidly using, I think it was, 50 watts of power - (I am quite sure I discussed this already) - and the job came in and people found that the normal straightforward way to do it took about 500 watts; and someone asked me to help and I was lucky enough to get a good idea which solved that problem and I think became the basis for another patent, but I don't think that was for a raster scan display. I am quite sure that it was for a random positioning-type application. At some time I remember trying to come up with a

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character generator. At the same time another group here at Sanders was working on it and I forget all the details of that one. I do remember that in that particular instance *e* whatever it was that I came up with *e* was not as good as theirs and mine was never used as far as I know.

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Q. Was that for a raster scan-type display?

A. I am not sure. The work I did was more or less paper-type thinking and I don't remember my ideas even getting to the circuitry stage. I don't think I ever saw the display that was actually involved and I can't really remember if it was a raster scan or not.

Q. Did you have any awareness - this is again prior to the time you went to work on the TV game project under Mr. Baer - did you have any awareness of raster scan displays and generation of images on such displays?

A. I had seen TV sets.

Q. Did you have knowledge of how images were generated on TV sets?

A. I am ashamed to say it was very minimal. Probably any TV technician knew a lot more of how they were

generated than I did. I remember I did learn quite a bit when I first went on the project with Mr. Baer. I did feel I had a good reason for learning such things as normal sweep times, things like that in TV sets. I am not saying I had no knowledge of how a TV set worked, but it wasn't really very specific.

Q. What was the source of that knowledge?

A. Just my general background in electronics.

Q. What type of display did you see at the FAA Center in Nashua on the occasion that you mentioned?

A. As I recall, it was a horizontal situation-type display. Again, this was probably about thirteen or fourteen years <sup>we</sup> ago. I can't recall exactly. I believe there were spots or some indications on that of where the airplanes were flying around the area. I don't remember exactly.

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Q. Being thirteen or fourteen years ago, then, that would have been prior to the time that you went to work under Mr. Baer?

A. That was your question, I thought, yes.

Q. Still prior to the time you went to work on the TV game project under Mr. Baer, did you have any

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other familiarity with raster scan displays and the generation of images other than with respect to television sets on which you observed broadcast programs?

A. About the only other one that I recall that would come close was at I T & T in Nutley, New Jersey, before I came to Sanders. I was given an assignment to generate a randomly triggered staircase generator to move lines on a display, a CRT, in response to random input pulses. I wouldn't call this what I think people think of as a normal raster scan, but it was as I have described.

Q. What was the end use for that device?

A. It was probably classified, I have no way of knowing whether it still is or not. It involves counter-measures.

Q. Still prior to the time that you went to work on the TV game project, what familiarity did you have with computers?

A. Very little.

Q. What was the familiarity you had with computers?

A. While I was at MIT, I was accepted in what was called the VI-A co-op course with Air Force Cambridge

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Research Lab. It was either my first term at that lab or one of the first terms that I was in a group which was doing some kind of development work on I guess what is now fairly early computers. I remember racks of tubes, plug-in units called trigger pairs, which are probably now referred to as flipflops. I was rather naive and green at that time insofar as engineering is concerned. I really didn't learn a lot of computer techniques in those two or three months, whatever it was.

Q. Did you acquire any familiarity with computers from that time until the time when you went to work on the TV game project?

A. Not really other than naturally knowing they exist and reading about them somewhat, but my work has never been linked very strongly with computers.

Q. Did you have any occasion to visit any computer facility?

A. I may have been to companies which had computers, but I don't remember going to any company specifically to look at computers, no.

Q. Did you during that same period observe any computers in operation with cathode ray tube displays?

A. This is the period before I went to work for Mr. Baer?

Q. Yes.

A. I don't think so. As I say, there may have been a computer involved in this FAA job at Raytheon, but I don't recall it; and, if there were, I wasn't involved in that part of it at all.

Q. Other than broadcasts observed on a TV receiver screen, had you prior to the time you went to work for Mr. Baer on the TV game project ever observed any game being played using the screen of a cathode ray tube?

A. No. Let me make sure we understand each other. I may have seen the TV that Ralph and Bill Harrison were using before I officially accepted his<sup>\*</sup> offer to work for him. <sup>\* w/r</sup> I am not sure whether or not I did, but when I said no, to the best of my recollection, I can't recall seeing games played on a TV display, CRT or whatever you want to call it, any place else. To the best of my knowledge, that was the first place I had ever seen such a thing.

Q. Calling your attention to what have been marked as Exhibits 26-8 through 26-18 which bears the title

*\* (Ralph) w/r 5/27/76*

Q. "Special Display Techniques - Final Report Date 8-5-68." Did you have anything to do with the

A. preparation of the document of which that appears to be a copy? or specifically doing it. I recognize

A. Could I have the question again? I put the whole thing together or not.

Q. (Whereupon, the previous Referring to Section 5 starting on page 26-11, that question was read back section being entitled "Digital Circuit System," by the reporter.)

Do you recognize the description in that section?

A. I think so.

THE WITNESS: Yes.

Q. What did you have to do with it? system referred to.

A. I at least recognize some of these figures as being drawn by me, the early Baer system or the later

Q. Which ones are those? I discussed last week?

A. Exhibits 26-13, 14, 15, 16. I'm looking for some

Q. Did you prepare this report? Ily variable delay and

A. I don't remember. rather sparse, so I can't say for

Q. Did you have anything to do with the preparation of the written material, pages 26-8 through 26-12?

A. Quite possibly. Obviously we can see my name and

Q. Mr. Baer's name on the top of this, but I was trying to see if I could recognize any of the wording being mine. prepared it?

- Q. You don't have any specific recollection of preparing this report?
- A. It looks like I quite possibly could have, but I don't remember specifically doing it. I recognize parts of it, but I don't know if I put the whole thing together or not.
- Q. Referring to Section 5 starting on page 26-11, that section being entitled "Digital Circuit System," do you recognize the description in that section?
- A. I think so.
- Q. Do you know whether the digital system referred to in there apparently shown in block diagram form in Figure 5 is the early Baer system or the later square spot system you discussed last week?
- A. I can't really tell. I was looking for some reference to the electronically variable delay and this write-up is rather sparse, so I can't say for sure which that is. It could be the first system or it could be at least a part of the later square spot system.
- Q. Having reviewed at least a part of this report, did it help refresh your recollection as to whether or not you prepared it?
- See note next page*

A. I can't recall whether I prepared it exclusively.  
I say I recognize parts of it as being mine; I may have done it in conjunction with Mr. Baer whose name appears on it also.

Q. Do you recognize parts of the descriptive material, pages 26-8 to 26-12 as having originated with you?

A. I think I recognize the section on page 1 called basic theory as possibly being mine in that I think it refers to some of these figures which I do seem to recognize as being my work. I can't really tell, assuming that I did write this section, whether I wrote it specifically for this report or whether it was something that I had written earlier and maybe had gotten pieced in here; I can't tell.

MR. WELSH: Mr. Williams, with the exception of those questions which you instructed the witness not to answer, that completes my direct examination of Mr. Rusch.

MR. WILLIAMS: All right; we have no cross.

MR. WELSH: Thank you,  
Mr. Rusch.

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See note next page  
WTR

Deponent

Deponent William T. Rusch \* SEE  
5/28/76 note below

THE STATE OF NEW HAMPSHIRE)  
COUNTY OF Hillsborough ) SS.

Subscribed and sworn to before me this 28  
day of May 19 76.

Virginia J. Murphy  
Justice of the Peace and/or  
Notary Public

\* Note: I have corrected these  
eight depositions only to  
the extent I can without  
referring to the exhibits.  
while correcting, I am doing  
most of this correcting on  
unpaid "overtime" (my time).  
I don't have enough of that  
kind of time to check every  
number, quote, circuit diagram,  
date etc. with the exhibits.  
To the extent covered by this  
note they are corrected carefully.  
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